

## **AMENDMENT to the CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

### **Listing of Claims:**

1. (previously presented) A computer-implemented method for converting a multilingual unidirectional domain name to a multilingual bidirectional domain name, the method comprising:

receiving into a computer storage memory a multilingual unidirectional World Wide Web address, the unidirectional World Wide Web address comprising a Uniform Resource Locator or a domain name and comprising characters from at least two character sets having at least two different display orders, wherein the multilingual unidirectional address comprises more than one natural language but only one direction of reading across the entire received address;

breaking by a computer the unidirectional World Wide Web entire address into a plurality of labels delimited by a pre-determined full stop punctuation mark between the labels, the labels having an original label display order as encountered from left to right, the labels containing a plurality of characters wherein each character has a determinate display order or an indeterminate display order, the full stop punctuation mark excluding a hyphen-minus character;

within at least one of the plurality of labels, performing inferencing through resolving display directions of indeterminate display order characters by assigning a strong reading direction left-to-right display order to each indeterminate display order character;

subsequent to the resolving, converting the multilingual unidirectional World Wide Web address to a multilingual bidirectional World Wide Web address by reordering by a computer the characters within each the label into a display order using the fully resolved characters previously inferenced wherein the original label display order is preserved and bidirectionality of characters within each label is produced, wherein the multilingual bidirectional address contains at least two different directions of reading across the entire converted address; and

displaying the multilingual bidirectional World Wide Web address on a computer display.

2. (previously presented) The method as set forth in Claim 1 wherein the inferencing comprises:
  - first, assigning a right-to-left direction to Arabic and Hebrew letters;
  - second, assigning a left-to-right direction to full stop characters and other alphabetic characters;
  - third, resolving the directions of digits; and
  - fourth, resolving the directions of hyphen-minus characters.
3. (previously presented) The method as set forth in Claim 2 wherein the resolving directions of digits comprises:
  - assigning a right-to-left direction to Arabic numerals; and
  - assigning a left-to-right direction to European numerals, unless a European numeral is surrounded by right-to-left characters such as Arabic or Hebrew letters, in which case assigning a right-to-left direction.
4. (previously presented) The method as set forth in Claim 2 wherein the resolving directions of hyphen-minus characters comprises:
  - assigning a left-to-right direction to all hyphen-minus characters which are not surrounded by characters whose direction is right-to-left; and
  - assigning a right-to-left direction to all hyphen-minus characters which are surrounded by characters whose direction is right-to-left.

5. (previously presented) A computer readable storage memory comprising:  
a computer storage memory suitable for encoding computer programs; and  
one or more computer programs encoded by the computer memory storage, the computer  
program:

receiving into a computer storage memory a multilingual unidirectional World Wide Web  
address, the unidirectional World Wide Web address comprising a Uniform  
Resource Locator or a domain name and comprising characters from at least two  
character sets having at least two different display orders, wherein the  
multilingual unidirectional address comprises more than one natural language but  
only one direction of reading across the entire received address;

breaking by a computer the unidirectional World Wide Web entire address into a  
plurality of labels delimited by pre-determined full stop punctuation mark  
between the labels, the labels having an original label display order as  
encountered from left to right, the labels containing a plurality of characters  
wherein each character has a determinate display order or an indeterminate  
display order, the full stop punctuation mark excluding a hyphen-minus character;

within at least one of the plurality of labels, performing inferencing through resolving  
display directions of indeterminate display order characters by assigning a strong  
direction left-to-right display order to each indeterminate display order character;  
subsequent to the resolving, converting the multilingual unidirectional World Wide Web  
address to a multilingual bidirectional World Wide Web address by reordering by  
a computer the characters within each the label into a display order using the fully  
resolved characters previously inferenced wherein the original label display order  
is preserved and bidirectionality of characters within each label is produced,  
wherein the multilingual bidirectional address contains at least two different  
directions of reading across the entire converted address; and

displaying the multilingual bidirectional World Wide Web address on a computer  
display.

6. (previously presented) The computer readable storage memory as set forth in Claim 5 wherein the inferencing comprises:

- first, assigning a right-to-left direction to Arabic and Hebrew letters;
- second, assigning a left-to-right direction to full stop characters and other alphabetic characters;
- third, resolving the directions of digits; and
- fourth, resolving the directions of hyphen-minus characters.

7. (previously presented) The computer readable memory as set forth in Claim 6 wherein the resolving directions of digits comprises:

- assigning a right-to-left direction to Arabic numerals; and
- assigning a left-to-right direction to European numerals, unless a European numeral is surrounded by right-to-left characters such as Arabic or Hebrew letters, in which case assigning a right-to-left direction.

8. (previously presented) The computer readable memory as set forth in Claim 6 wherein the resolving directions of hyphen-minus characters comprises:

- assigning a left-to-right direction to all hyphen-minus characters which are not surrounded by characters whose direction is right-to-left; and
- assigning a right-to-left direction to all hyphen-minus characters which are surrounded by characters whose direction is right-to-left.

9. (previously presented) A system which converts a unidirectional domain name to a bidirectional domain name comprising:

- a computer platform having a central processing unit for performing logical processes;
- an input portion of the computing platform receiving into a computer storage memory a multilingual unidirectional World Wide Web address, the unidirectional World Wide Web address comprising a Uniform Resource Locator or a domain name and comprising characters from at least two character sets having at least two different display orders, wherein the multilingual unidirectional address comprises more than one natural language but only one direction of reading across the entire received address;
- a label definer portion of the computer platform breaking the unidirectional World Wide Web entire address into a plurality of labels delimited by pre-determined full stop punctuation mark between the labels, the labels having an original label display order as encountered from left to right, the labels containing a plurality of characters wherein each character has a determinate display order or an indeterminate display order, the full stop punctuation mark excluding a hyphen-minus character;
- an inferencer portion of the computing platform performing within at least one of the plurality of labels inferencing through resolving display directions of indeterminate display order characters by assigning a strong direction left-to-right display order to each indeterminate display order character;
- a character reorderer portion of the computing platform converting subsequent to the resolving the multilingual unidirectional World Wide Web address to a multilingual bidirectional World Wide Web address by reordering by a computer the characters within each the label into a display order using the fully resolved characters previously inferenced wherein the original label display order is preserved and bidirectionality of characters within each label is produced, wherein the multilingual bidirectional address contains at least two different directions of reading across the entire converted address; and
- a user display portion of the computing platform displaying the multilingual bidirectional World Wide Web address on a computer display.

10. (previously presented) The system as set forth in Claim 9 wherein the inferencer comprises:
- a first direction assignor assigning a right-to-left direction to Arabic and Hebrew letters;
  - a second direction assignor assigning a left-to-right direction to full stop characters and other alphabetic characters;
  - a third direction assignor resolving the directions of digits; and
  - a fourth direction assignor for resolving the directions of hyphen-minus characters.
11. (previously presented) The system as set forth in Claim 10 wherein the third direction assignor comprises:
- a right-to-left direction assignor operative on Arabic numerals, and for all European numerals which are surrounded by right-to-left characters such as Arabic and Hebrew letters; and
  - a left-to-right direction assignor operative on European numerals which are not surrounded by right-to-left characters such as Arabic or Hebrew letters.
12. (previously presented) The system as set forth in Claim 10 wherein the fourth direction assignor comprises:
- a left-to-right direction assignor for hyphen-minus characters which are not surrounded by characters whose direction is right-to-left; and
  - a right-to-left direction assignor for hyphen-minus characters which are surrounded by characters whose direction is right-to-left.
13. (previously presented) The method as set forth in Claim 1 wherein the pre-determined full stop punctuation mark used as a delimiter between the labels comprises a Latin period punctuation mark.
14. (previously presented) The computer-readable memory as set forth in Claim 5 wherein the pre-determined full stop punctuation mark used as a delimiter between the labels comprises a Latin period punctuation mark.

15. (previously presented) The system as set forth in Claim 9 wherein the pre-determined full stop punctuation mark used as a delimiter between the labels comprises a Latin period punctuation mark.